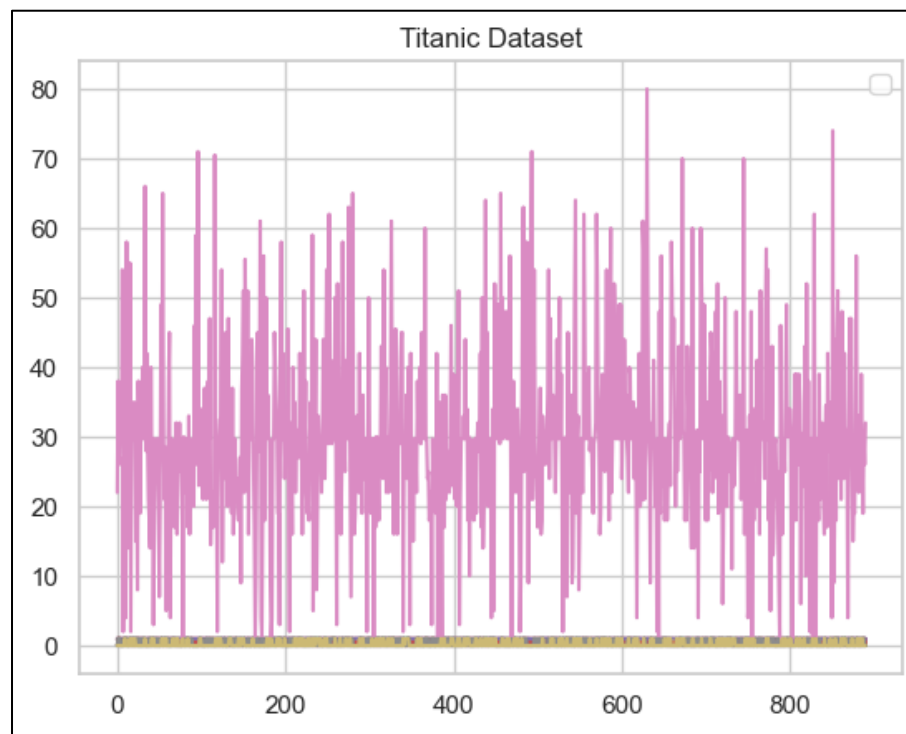
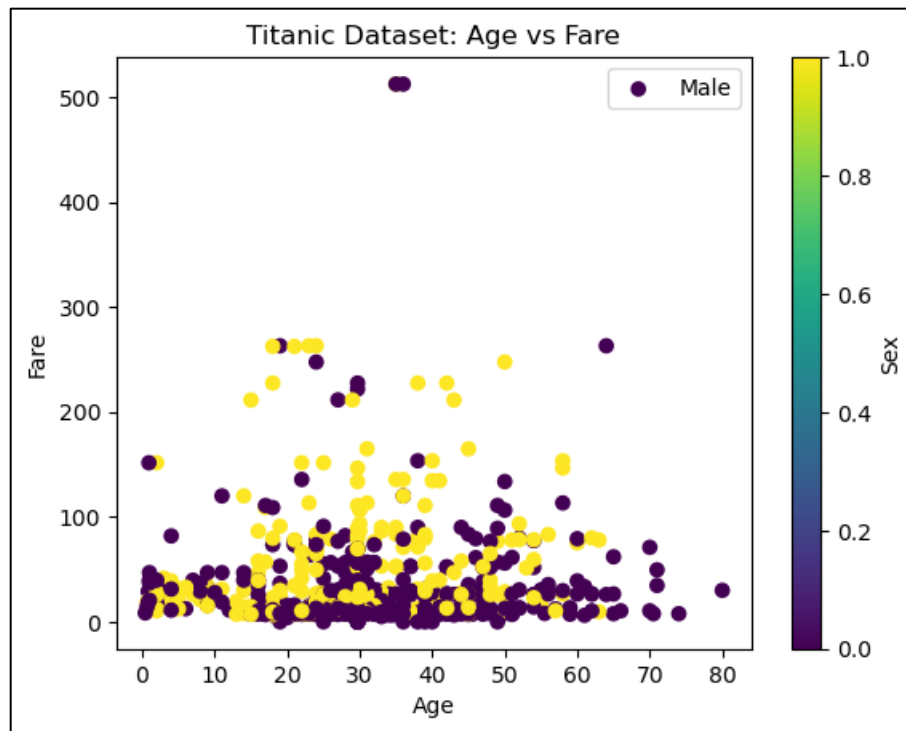
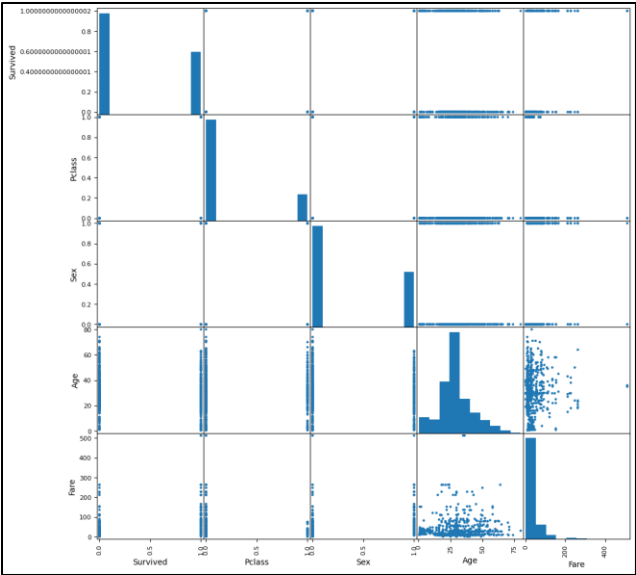
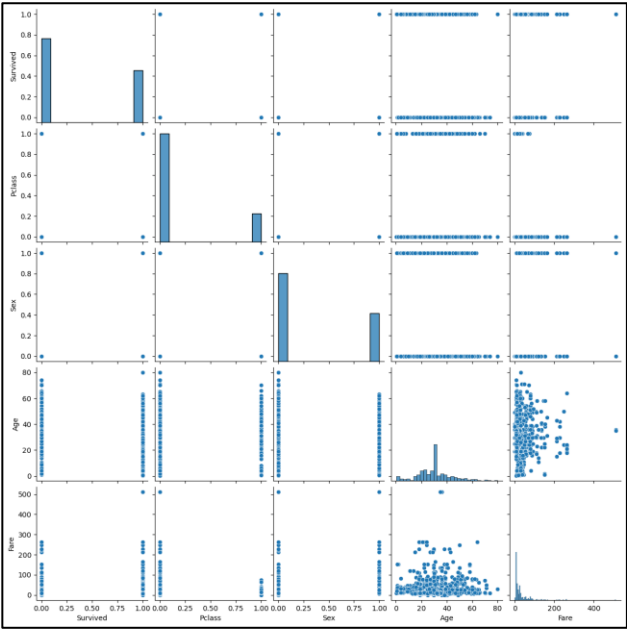
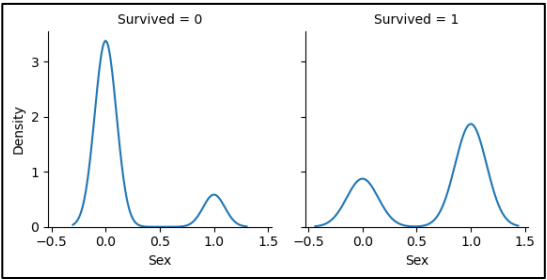


LabSession8

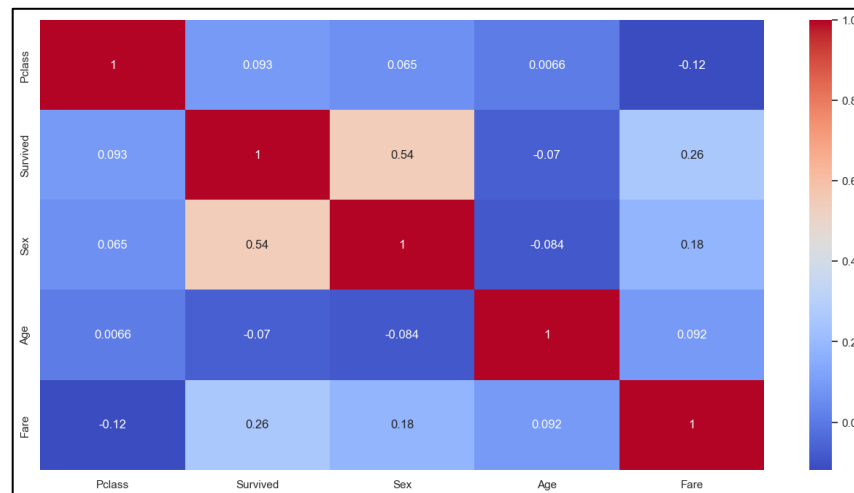
Data Visualization Using Matplotlib:



Data Visualization Using Seaborn:



Correlation Matrix:



Running Virtual Environment:

Installation of Matplotlib in VENV:

```
(.venv) gauravvrai@Gauravs-Air LabSession8 % pip3 install seaborn
Collecting seaborn
  Obtaining dependency information for seaborn from https://files.pythonhosted.org/packages/7b/e5/83fcd7e9db836c179e0352bfcd20f81d728197a16f883e7b
  90307a88e65e/seaborn-0.13.0-py3-none-any.whl.metadata
  Downloading seaborn-0.13.0-py3-none-any.whl.metadata (5.3 kB)
Requirement already satisfied: numpy!=1.24.0,>=1.20 in ./venv/lib/python3.11/site-packages (from seaborn) (1.26.2)
Collecting pandas>=1.2 (from seaborn)
  Obtaining dependency information for pandas>=1.2 from https://files.pythonhosted.org/packages/d6/7c/20e737300f9bec011fb79c01d8948bc38c854876aac2
  da2cfcd0909b153/pandas-2.1.3-cp311-macosx_11_0_arm64.whl.metadata
  Downloading pandas-2.1.3-cp311-macosx_11_0_arm64.whl.metadata (18 kB)
Requirement already satisfied: matplotlib!=3.6.1,>=3.3 in ./venv/lib/python3.11/site-packages (from seaborn) (3.8.2)
Requirement already satisfied: contourpy>=1.0.1 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (1.2.0)
Requirement already satisfied: cycler>=0.10 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (4.45.1)
Requirement already satisfied: kiwisolver>=1.3.1 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (1.4.5)
Requirement already satisfied: packaging>=20.0 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (23.2)
Requirement already satisfied: pillow>=8 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (10.1.0)
Requirement already satisfied: pyparsing>=2.3.1 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (3.1.1)
Requirement already satisfied: python-dateutil>=2.7 in ./venv/lib/python3.11/site-packages (from matplotlib!=3.6.1,>=3.3->seaborn) (2.8.2)
Collecting pytz>=2020.1 (from pandas>=1.2->seaborn)
  Obtaining dependency information for pytz>=2020.1 from https://files.pythonhosted.org/packages/32/4d/aaf7eff5deb402fd9a24a1449a8119f00d74ae9c2ef
  a79f8ef9994261fc2/pytz-2023.3.post1-py2.py3-none-any.whl.metadata
  Using cached pytz-2023.3.post1-py2.py3-none-any.whl.metadata (22 kB)
Collecting tzdata>=2022.1 (from pandas>=1.2->seaborn)
  Using cached tzdata-2023.3-py2.py3-none-any.whl (341 kB)
Requirement already satisfied: six>=1.5 in ./venv/lib/python3.11/site-packages (from python-dateutil>=2.7->matplotlib!=3.6.1,>=3.3->seaborn) (1.1
6.0)
Downloading seaborn-0.13.0-py3-none-any.whl (294 kB)
   294.6/294.6 kB 5.4 MB/s eta 0:00:00
Downloading pandas-2.1.3-cp311-macosx_11_0_arm64.whl (10.8 MB)
   10.8/10.8 MB 39.3 MB/s eta 0:00:00
```

Installation of Seaborn in VENV:

```
(.venv) gauravvrai@Gauravs-Air LabSession8 % source .venv/bin/activate
(.venv) gauravvrai@Gauravs-Air LabSession8 % pip3 install matplotlib
Collecting matplotlib
  Obtaining dependency information for matplotlib from https://files.pythonhosted.org/packages/ce/25/a557ee10ac9dce1300850024707ce1850a6958f673a9
  194be078b090631/matplotlib-3.8.2-cp311-macosx_11_0_arm64.whl.metadata
  Downloading matplotlib-3.8.2-cp311-macosx_11_0_arm64.whl.metadata (5.8 kB)
Collecting contourpy>=1.0.1 (from matplotlib)
  Obtaining dependency information for contourpy>=1.0.1 from https://files.pythonhosted.org/packages/5b/ac/26fa1057f62beaa2af4c55c6ac733b114a403b7
  46cf0e3dc6e4ae921a/contourpy-1.2.0-cp311-macosx_11_0_arm64.whl.metadata
  Downloading contourpy-1.2.0-cp311-macosx_11_0_arm64.whl.metadata (5.8 kB)
Collecting cycler>=0.10 (from matplotlib)
  Obtaining dependency information for cycler>=0.10 from https://files.pythonhosted.org/packages/e7/05/c19819d5e3d95294a6f5947fb9b9629efb316b96de5
  11b418c53d245aae6/cycler-0.12.1-py3-none-any.whl.metadata
  Downloading cycler-0.12.1-py3-none-any.whl.metadata (3.8 kB)
Collecting fonttools>=4.22.0 (from matplotlib)
  Obtaining dependency information for fonttools>=4.22.0 from https://files.pythonhosted.org/packages/70/e5/d873fc45592bd3cd5ca8a136d91877624b55a2
  dcd84c2e4edc6b683a4ef/fonttools-4.45.1-cp311-macosx_10_9_universal2.whl.metadata
  Downloading fonttools-4.45.1-cp311-macosx_10_9_universal2.whl.metadata (155 kB)
   155.2/155.2 kB 3.6 MB/s eta 0:00:00
```